REMARKS

The examiner rejected claims 18, 27, 29-35 and 37 under 35 U.S.C. section 112 second paragraph as being indefinite. These claims have been amended and now comply with the requirements of 35 U.S.C. section 112.

The examiner rejected claims 1 and 36 under 35 U.S.C. as being anticipated by Feldstein. The examiner rejected claims 2-6, 12-13, 17-20, 22-25, 27-29 and 30-31 under 35 U.S.C. 103(a) as being unpatentable over Feldstein in view of Booth. The examiner rejected claims 32-35 as being unpatentable over Feldstein in view of Booth and Herron. The examiner rejected claims 14-16 as being unpatentable over Feldstein in view of Booth and Delamarche. The examiner rejected claim 26 as being unpatentable in view of Feldstein in view of Booth, Delamarche and Liu. The examiner rejected claim 37 as being unpatentable over Feldstein. The examiner rejected claims 7-11 and 21 as being unpatentable over Feldstein in view of Booth and Delamarche.

CLAIM 1

The examiner rejected claim 1 under 35 U.S.C. section 102(a) as being anticipated by Feldstein et al. Claim 1 has been significantly amended mostly to clarify its meaning. It should be noted that the Feldstein teaches a metal reflecting layer on top of the slab, and placing test samples on the surface of a planar optical waveguide, NOT IN NANOWELLS in a dielectric cladding layer: ("The 2-dimensional surface of the waveguide lends itself to spatial patterning of multi-analyte array elements .... ", Feldstein, p. 140, next to last par.). The applicant's claim 1 claims nanowells contained *in* a cladding layer. Feldstein does not teach placing test samples *in* a cladding layer or nanowells, but rather teaches away from this:("A physically isolated patterning (PIP) method has been developed and used to generate an array of recognition elements, each approximately 1 mm sq, *on the planer waveguide* multi-analyte sensor." Feldstein, p. 141, Sec. 3.A., italics added). In addition, Feldman teaches away from a dielectric cladding layer since he had to use a metal reflective layer at the surface of the guide to make it work (Feldstein, p. 144, 1st paragraph).

For these reasons, claim 1 is not anticipated or rendered obvious by Feldstein or any combination of references.

CLAIM 2 and Subsequent Claims

Most of the subsequent claims have been amended to clarify their meaning. In addition many new claims have been added. All the claims now claim wells located in a cladding layer. This is not taught by Feldstein or any of the other references. Also, in all subsequent claims, the applicant claims a polymer waveguide structure. As the examiner admits, Feldstein does not teach using a polymer.

Booth, while using a polymer, contains no teaching of nanowells or use of an evanescent wave to excite molecules in nanowells, nor any biological use whatsoever. It is not possible to combine Booth with Feldstein because Booth teaches optical waveguides only for guiding waves from one destination to another. Booth contains no suggestion of obvious that would form a basis to combine with any type of device with wells in a cladding layer ("The general purpose

of this invention is to provide new and improved optical waveguide structures having predetermined geometry …" Booth, Col. 3, line 19). ("The present invention is also directed to optical waveguide elements for use in creating optical waveguide devices comprising the elements resulting from each step of the method of the present invention until an optical waveguide device is formed.", Booth, Col 3, line 52).

In addition, there is also no basis to combine the teachings of the other references cited by the examiner in light of the amended claims.

For the above reasons, the examiner will find that the claims, as amended, are now allowable. The examiner is therefore requested to place the case in condition for allowance at his earliest possible convenience.

Respectfully Submitted: Clifford Kraft

Clifford H. Kraft
#35,229

First Class Mailing Certificate - This paper is being mailed by United States Postal First Class Mail to Commissioner for Patents, P.O. Box 1450, Alexandria Va., 22313-1450 by Clifford Kraft on June 10, 2003